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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,158	12/08/2003	Takeshi Makiyama	1152-0293P	3080

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EXAMINER

SHERALI, ISHRAT I

ART UNIT PAPER NUMBER

2621

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/729,158	MAKIYAMA ET AL.	
	Examiner	Art Unit	
	Sherali Ishrat	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 08727787.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection.

Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 11/29/2005 has been entered.

Applicant's arguments are fully considered however they are moot due to new grounds of rejection, which was necessitated because amendment to the claims.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 23-24 are rejected under 35 USC § 103 (a) as being unpatentable over Wu et al. (US 5,376,968) in view of Purcell et al. (US 5,598,483).

Regarding claim 23 Wu discloses image coding apparatus (Fig. 1, shows image coding apparatus, Transform, Quantize and Encode) comprising:

a motion compensation means (Wu, Fig 1, col. 8, lines 24-25, Wu states "compression mode using motion compensation" which corresponds to motion compensation means);

a transforming means (Wu, Fig 1, blocks 12, 26 and 44 col. 8, lines 27-28, Wu shows transforming means);

a quantizing means (Wu, Fig 1, blocks 12, 26 and 44 col.8, 27-28, Wu shows transforming and quantizing means);

an inverse quantizing means (Wu, Fig 2, block 84 shows inverse quantizing means);

an inversing transform means (Wu, Fig 2, block 86 shows inverse transforming means);

motion compensation means is composed of plural motion compensation tools (Wu, Fig 2, shows plural motion vector [MV], and Wu in col. 4, lines 6-13, states "The second compression mode compress each block with motion compensation based on a general motion vector and "The third compression mode compresses each block with motion compensation based on specific motion vector and Wu, in col. 8, 25-45, explains plural motion compensation means);

image coding apparatus transmit information for selecting a tool for decoding a coded image data (Wu, Fig 2, col. 10, lines 29-40, states "the quantized coefficients selected by switch in response to the super-block comparator are input to inverse quantizer and inverse transform [decoding image data] to recover the original data block or difference signal input to the

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corresponding transform quantize circuit. This corresponds to image coding apparatus transmit for selecting a tool for decoding a coded image data and Fig. 2 shows image coding apparatus transmit information for selecting a tool for decoding a coded image data).

Wu however has not explicitly shown transmit information for selecting from a first tool sampling per half pixel and second tool sampling quarter pixel.

In the same field of endeavor of coding/ decoding video data and motion compensation, Purcell discloses transmit information for selecting from a first tool sampling per half pixel and second tool sampling quarter pixel (Purcell in FIG. 11a & col. 21, lines 39-42, shows "decode circuit detects one of the special instruction MVLOAD, MV1, MV2 or MV2" and FIG. 13a & col. 23, lines 41-49, Purcell shows "In fetching macro-block from external DRAM, processor provides the first order motion compensation which is computed in the manner with the special instructions MVLOAD, MV1, MV2 or MV2. Pixel filter provides re-sampling of pixels half pixel or quarter pixel using the lower order bits of X and Y components of the motion vector". This corresponds to transmit information for selecting from a first tool sampling per half pixel and second tool sampling quarter pixel).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made use the teaching of Purcell in the system of Wu of transmit information for selecting from a first tool sampling per half pixel and second tool sampling quarter pixel because such a process is necessary for decoding the encoded video and outputting the decoded video to the display.

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Regarding claim 24 Wu discloses image decoding apparatus (Figs. 1 and 2, shows image decoding apparatus, inverse Transform, and inverse Quantizer comprising:

a motion compensation means (Wu, Fig 1, col. 8, lines 24-25, Wu states "compression mode using motion compensation" which corresponds to motion compensation means);

an inverse quantizing means (Wu, Fig 2, block 84 shows inverse quantizing means);

an inversing transform means (Wu, Fig 2, block 86 shows inverse transforming means);

motion compensation means is composed of plural motion compensation tools (Wu, Fig 2, shows plural motion vector [MV], and Wu in col. 4, lines 6-13, states "The second compression mode compress each block with motion compensation based on a general motion vector and "The third compression mode compresses each block with motion compensation based on specific motion vector and Wu, in col. 25-45, explains plural motion compensation means);

image decoding apparatus receives information for selecting a tool for decoding a coded image data (Wu, Fig 2, col. 10, lines 29-40, states "the quantized coefficients selected by switch in response to the super-block comparator are input to inverse quantizer and inverse transform [decoding image data] to recover the original data block or difference signal input to the

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corresponding transform quantize circuit. This corresponds to image decoding apparatus receives information for selecting a tool for decoding a coded image data and Fig. 2 shows image coding apparatus transmit information for selecting a tool for decoding a coded image data).

Wu however has not explicitly shown receiving information for selecting from a first tool sampling per half pixel and second tool sampling quarter pixel.

In the same field of endeavor of coding/ decoding video data and motion compensation, Purcell discloses receiving information for selecting from a first tool sampling per half pixel and second tool sampling quarter pixel (Purcell in FIG. 11a & col. 21, lines 39-42, shows "decode circuit detects one of the special instruction MVLOAD, MV1, MV2 or MV2" and FIG. 13a & col. 23, lines 41-49, Purcell shows "In fetching macro-block from external DRAM, processor provides the first order motion compensation which is computed in the manner with the special instructions MVLOAD, MV1, MV2 or MV2. Pixel filter provides re-sampling of pixels half pixel or quarter pixel using the lower order bits of X and Y components of the motion vector". This corresponds to receiving information for selecting from a first tool sampling per half pixel and second tool sampling quarter pixel).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made use the teaching of Purcell in the system of Wu of receiving information for selecting from a first tool sampling per half pixel and second tool sampling quarter pixel because such a process is necessary for decoding the encoded video and outputting the decoded video to the display.

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Contact Information

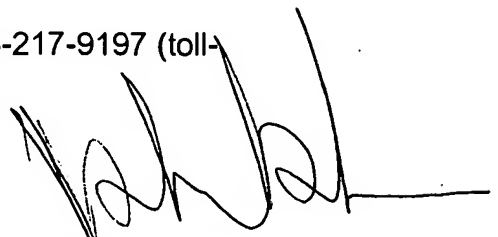
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherali Ishrat whose telephone number is 571-272-7398. The examiner can normally be reached on 8:00 AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ishrat Sherali

February 15, 2006



ISHRAT SHERALI
PATENT EXAMINER
ARTUNIT 2621